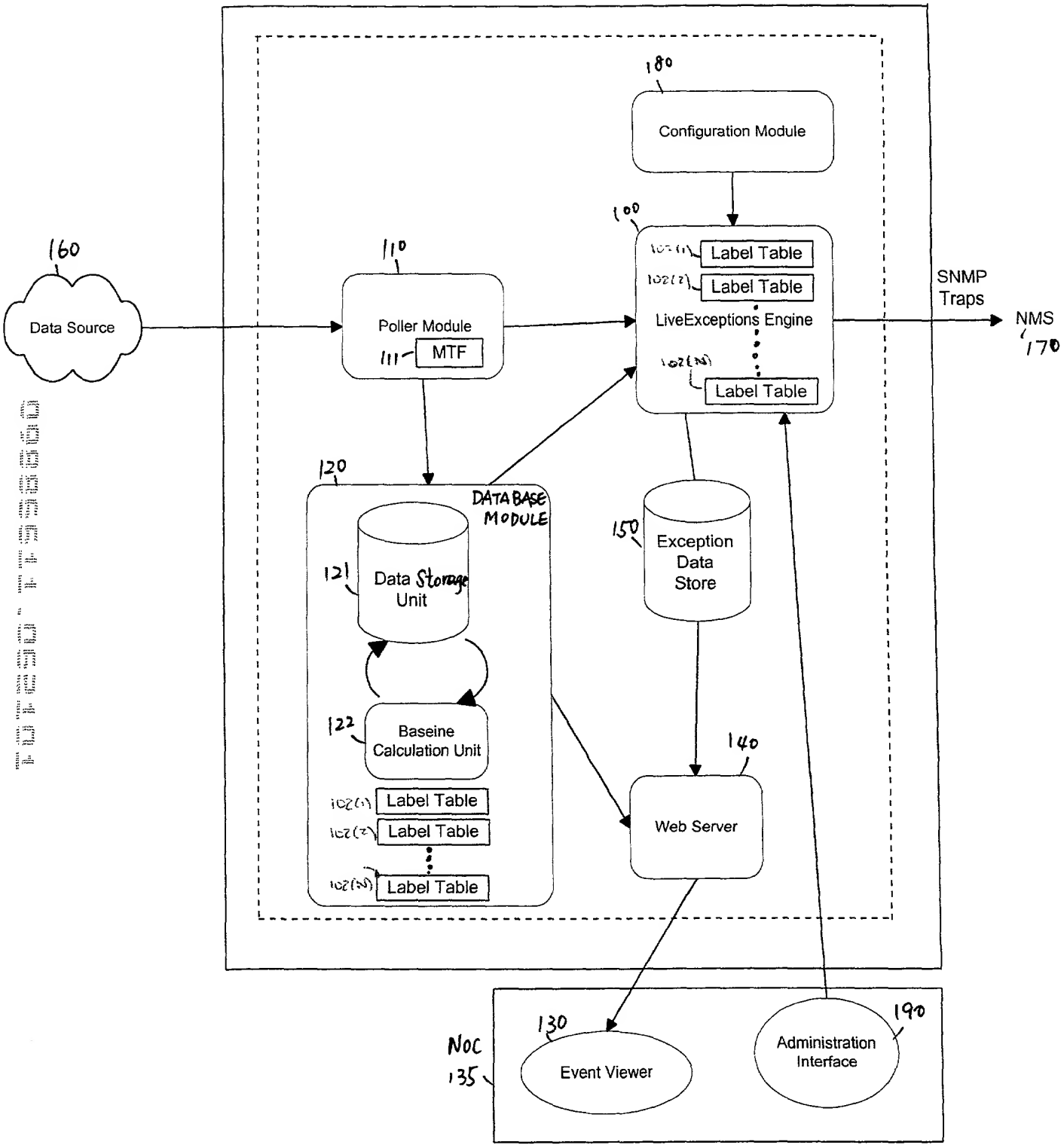
180
Configuration Module
100
Label Table
Label Table
LiveExceptions Engine
Label Table
160
Data Source
110
Poller Module
111
MTF
SNMP
Traps
NMS
170
120
DATABASE
MODULE
121
Data Storage
Unit
150
Exception
Data
Store
122
Baseine
Calculation Unit
Label Table
Label Table
Label Table
140
Web Server
NOC
135
130
Event Viewer
190
Administration
Interface

Fig. 1

MTF 111

```
mib mib2
{
  file mib2.mib
  version 2
  agent "MIB2 (wan port)"
    translation
    {
        mediaType = -100
        mediaSpeed = ifSpeed%
        operStatus = ifOperStatus%
        operStatusLastChange = ifLastChange%
        variable1 = ifInUcastPkts + ifInNUcastPkts +
ifInErrors + ifInDiscards + ifInUnknownProtos
        variable2 = ifInOctets
        variable3 = ifInNUcastPkts
        variable4 = ifInNUcastPkts + ifOutNUcastPkts
        variable10 = ifInErrors
        variable9 = ifInDiscards
        variable16 = ifInUnknownProtos
        variable22 = ifInUcastPkts + ifInNUcastPkts +
ifOutUcastPkts + ifOutNUcastPkts + ifInErrors + ifInDiscards
+ ifInUnknownProtos
        variable23 = ifInOctets + ifOutOctets
        variable24 = ifInErrors + ifOutErrors
        variable25 = ifInDiscards + ifOutDiscards
    }
}
```

21

23

22

```
dataSourceType dataSourceType
presVarListName presVarListName
protocol protocol
```

Fig 2.

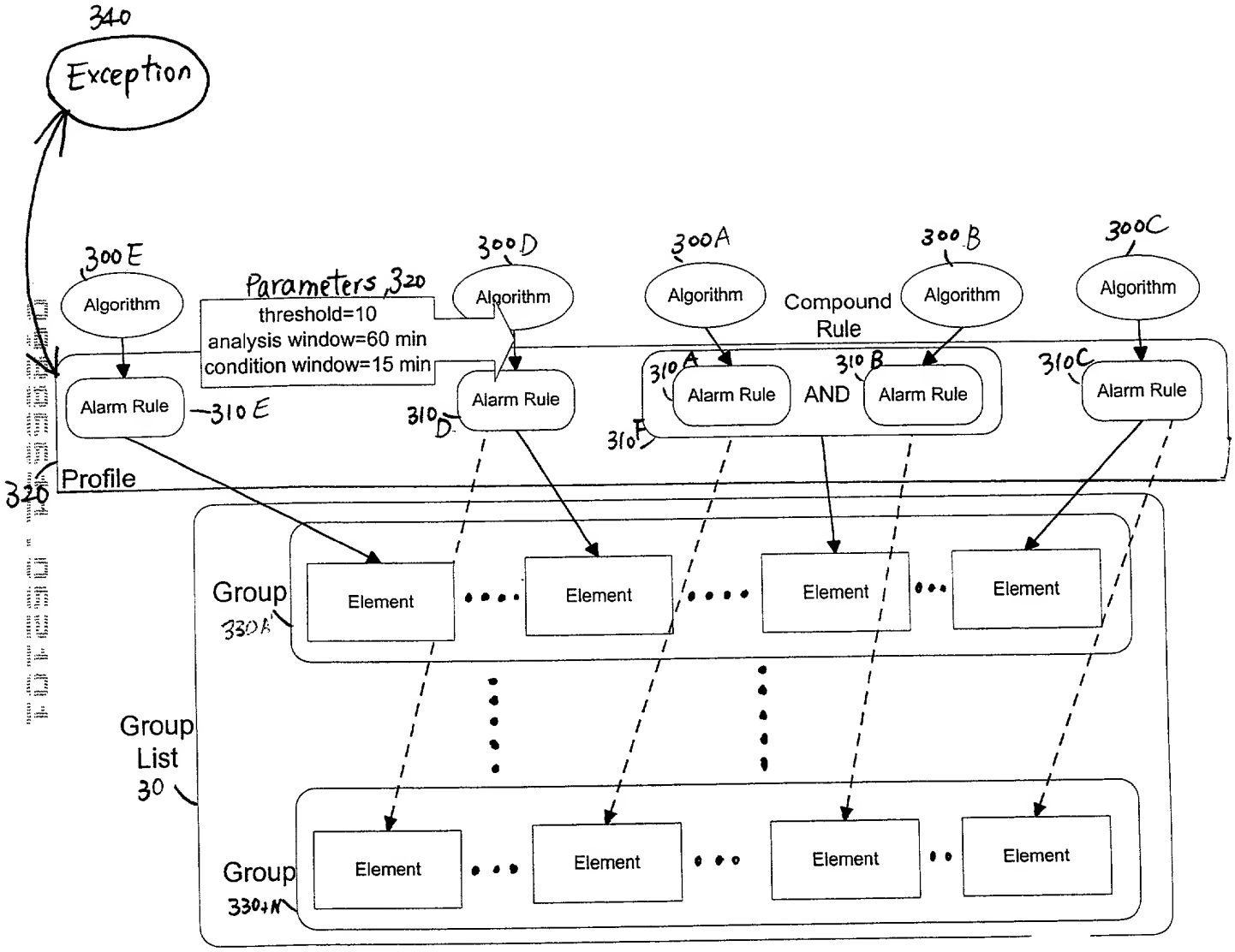
340
Exception
300E
Algorithm
Parameters 320
threshold=10
analysis window=60 min
condition window=15 min
300D
Algorithm
300A
Algorithm
Compound Rule
300B
Algorithm
300C
Algorithm
Alarm Rule
310E
310D
Alarm Rule
310A
Alarm Rule
AND
310B
Alarm Rule
310C
Alarm Rule
310F
320
Profile
Group
330A
Element
Element
Element
Element
Group List
30
Group
330+N
Element
Element
Element
Element

Fig 3.

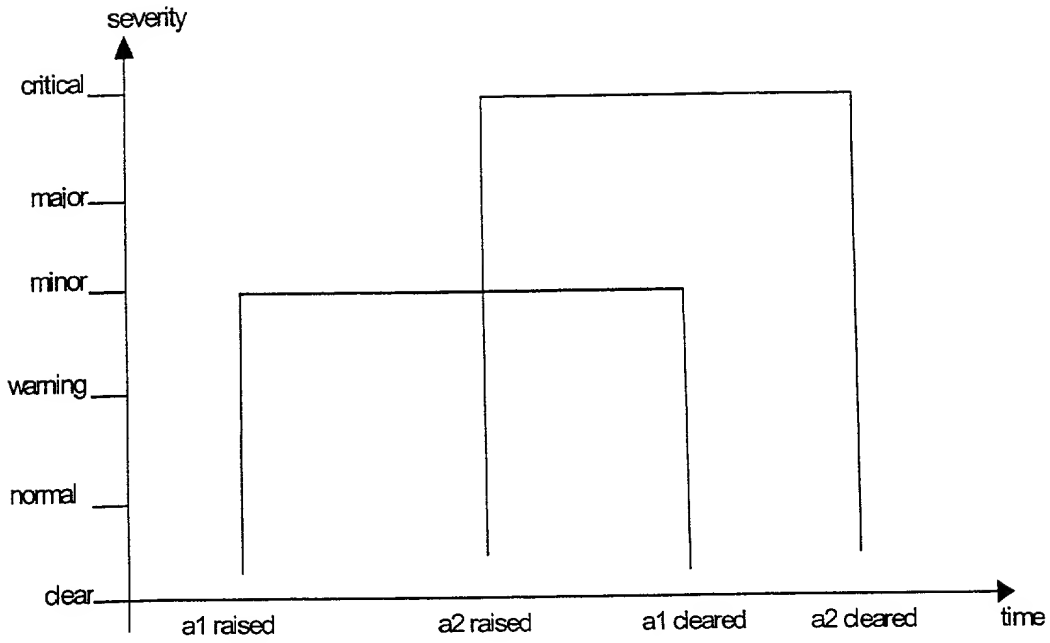
severity
critical
major
minor
warning
normal
clear
a1 raised
a2 raised
a1 cleared
a2 cleared
time

FIG. 4

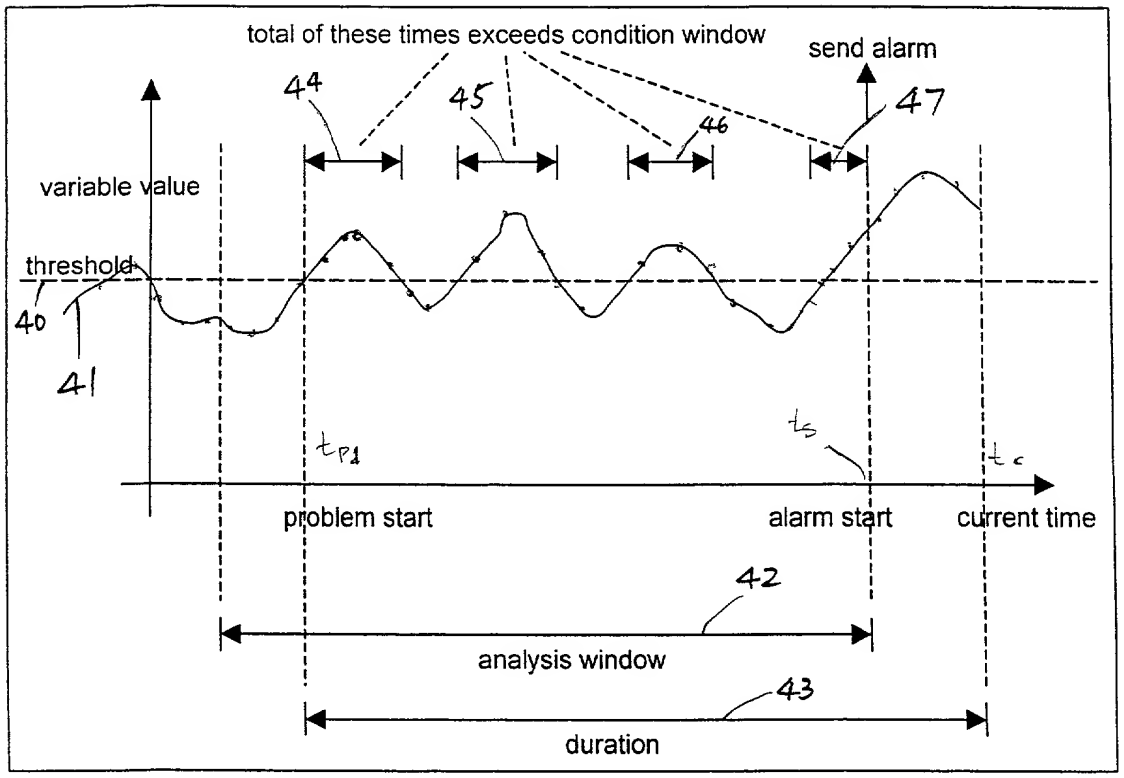
total of these times exceeds condition window
send alarm
44
45
46
47
variable value
threshold
40
41
t_{p1}
t_s
t_c
problem start
alarm start
current time
42
analysis window
43
duration

FIG. 5

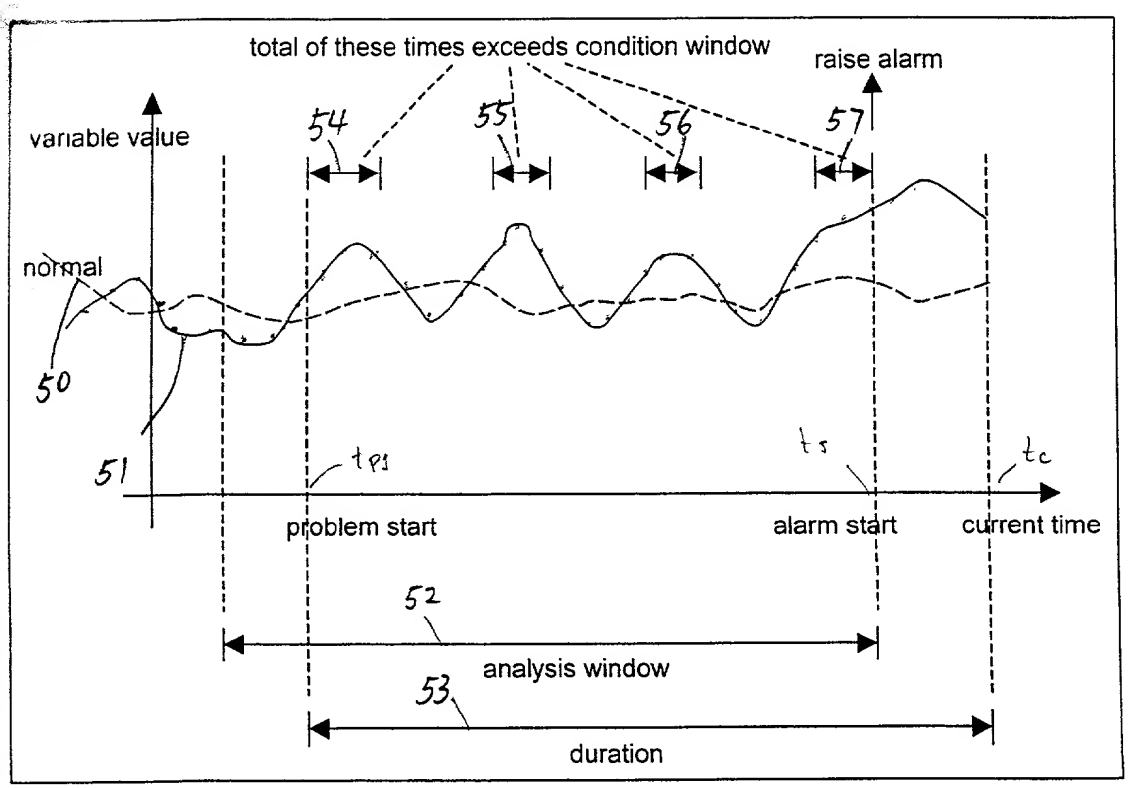
total of these times exceeds condition window
raise alarm
variable value
54
55
56
57
normal
50
51
t_{ps}
t_s
t_c
problem start
alarm start
current time
52
analysis window
53
duration

FIG. 6

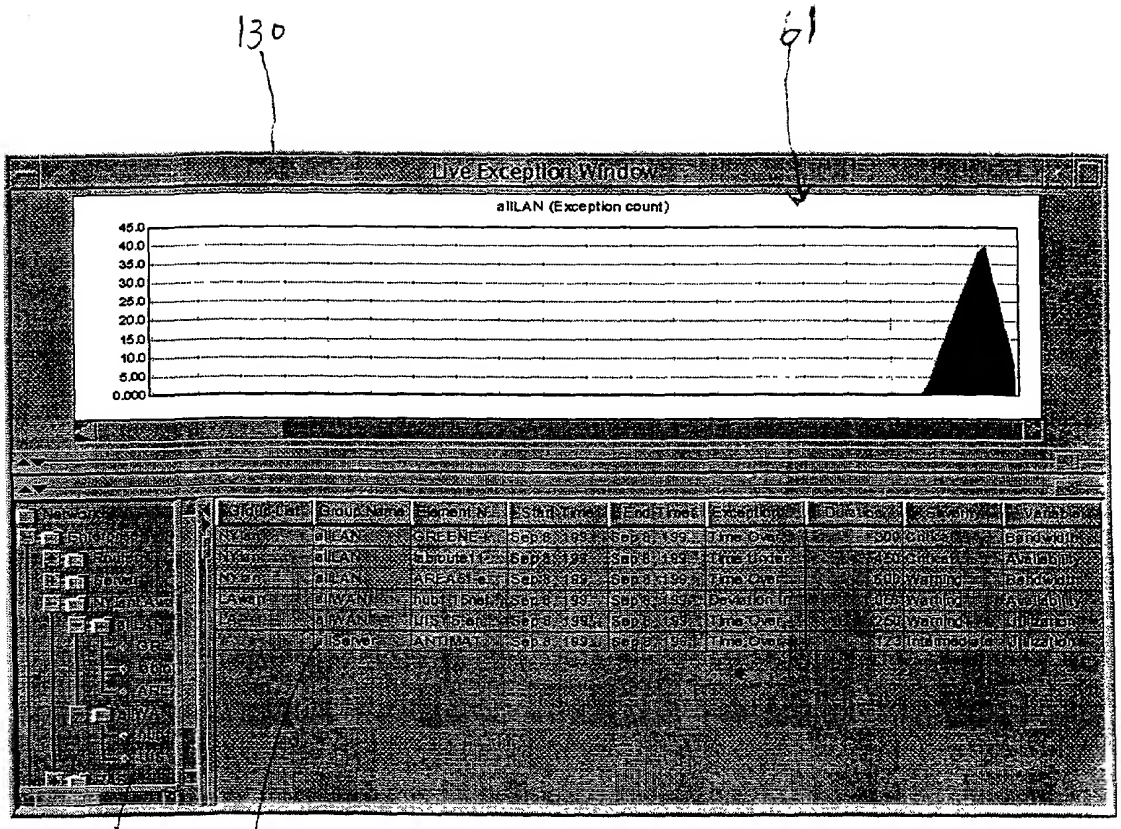
130
61
Live Exception Window
allLAN (Exception count)
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.00
0.000
63
62

FIG. 7

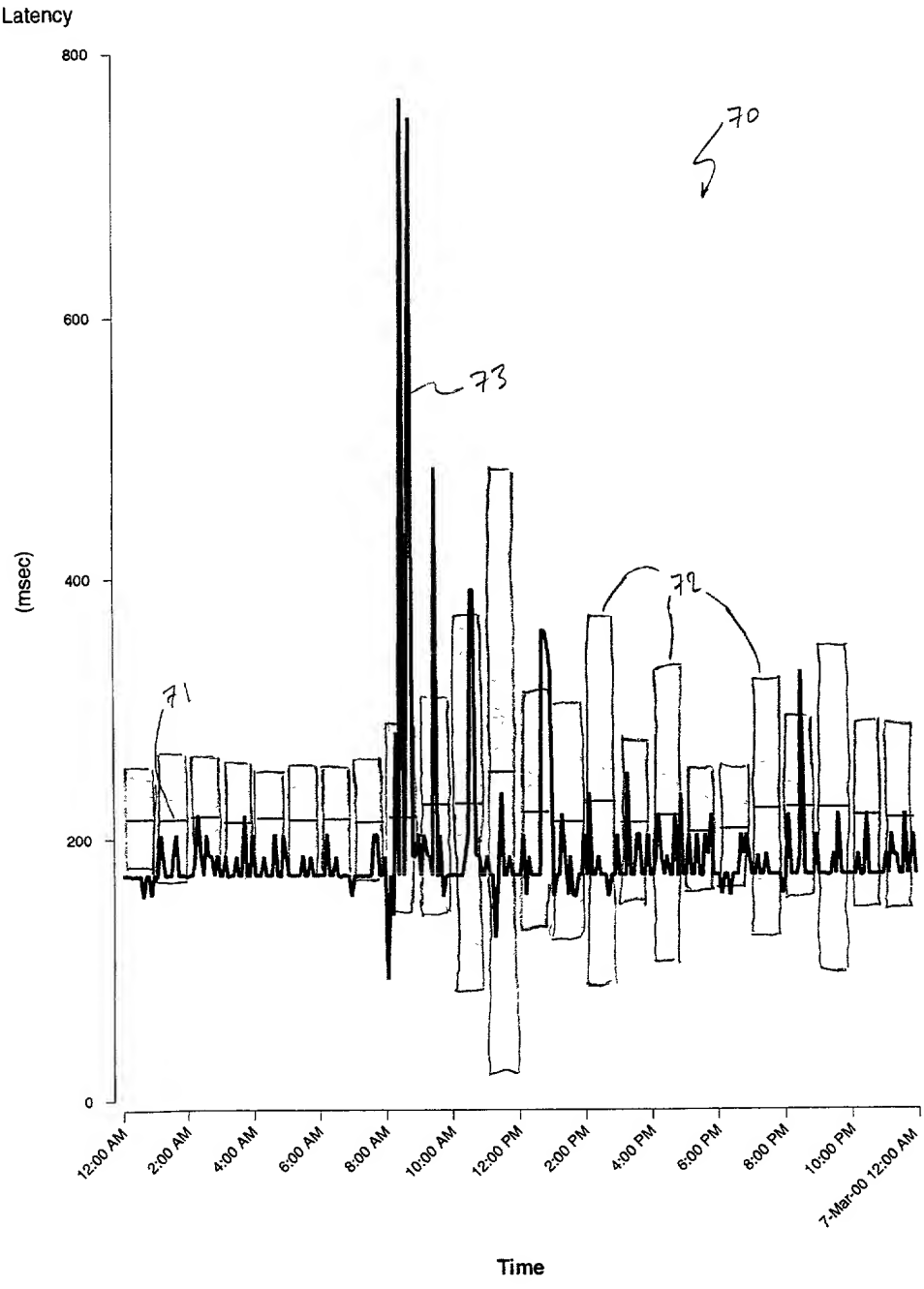
Latency
800
600
400
200
0
(msec)
70
71
72
73
12:00 AM
2:00 AM
4:00 AM
6:00 AM
8:00 AM
10:00 AM
12:00 PM
2:00 PM
4:00 PM
6:00 PM
8:00 PM
10:00 PM
7-Mar-00 12:00 AM
Time

FIG. 8

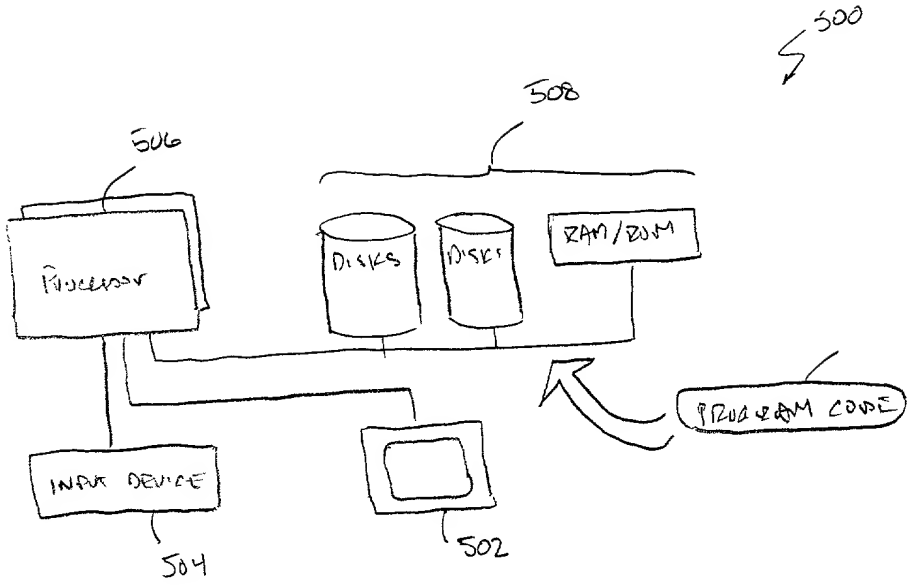
500
508
506
PROCESSOR
DISKS
DISKS
RAM/ROM
PROGRAM CODE
INPUT DEVICE
504
502

FIG. 9